

WHEN GROSS FEED-IN ENDS

The Solar Gross Feed-In tariff of 60cents/kwh ends this year in NSW (December 2016) and 146,000 households will be scrambling for alternatives. There are four main options:

Do Nothing?

Under current arrangements the feed in price will drop ten fold to 6 cents/kwh or less but you will still be charged 28 cents/kwh (or more) for the power you use. The price drop will be instant but shortages of equipment and Grade 2 technicians could mean you will have to wait many months for other options.

Lose it?

One option that people may take is to sell some or all of their solar panels. Unfortunately, a sudden glut of so many second hand panels is likely to cause a price crash. Prices have fallen for new panels and it may prove difficult to sell second hand panels even at less than 30c per watt (\$300/kWatt).



Use it?

Why pay four and a half times more for power you use than you receive for the power being produced by your solar panels.

Step1: It seems unlikely that the utilities will volunteer to rewire and reprogram the gross feed meters. You will need a NET feed in meter or Smart Meter so solar production is subtracted from your usage **every half hour**. This option may cost between \$300 and \$500 and there may a shortage. Smart Meters may be preferred by power companies as they can then cut your power from their office.

Visit www.tweedcan.org.au to help us pressure Essential Energy to prepare for the mass transition.

A second drawback is that you may not be using much power when your solar output is high. Your excess solar will be sold off at 6 cents/kwh (about \$67/year/kilowatt for solar panels on the north coast).



Typical Net Feed-In Meter

Step 2: Shift your usage to use as much power as possible when your panels are producing eg use the dish washer or clothes drier or A/C in the day instead of at night. Unfortunately, much of your usage is still likely to be after dark.

Step 3: Shift power by installing batteries so you can use power at night stored from your solar panels. This is called a “Hybrid System”. You may even be able to save more money by changing to time of use billing (see end note TOU). A regulator will be needed to charge the batteries from the solar. In some cases the solar inverter you have that makes 240AC will not work from batteries so you may also need a new inverter. The main limitation will be the batteries. Large storage batteries actually cost much more per kilowatt hour than smaller batteries and are likely to be in short supply in 2016/17. New battery options are available but that does not mean they are cheap.

One option is to have limited storage which runs only some dedicated circuits such as lights, refrigerator, TV and internet. This type of system would also act as a backup during blackouts. The cost would be around \$6000 but should gradually pay for itself over 10 years.

If you have a large solar array of more than 3 kilowatts you can get a multi-source inverter or go completely off the grid. A multi-source inverter can synchronise solar or battery power with grid power and means you can still sell the power you cannot store. Currently these devices cost around \$6000 and you will still have to pay for batteries. Another option is to go off the grid entirely. The cost will likely be upwards of \$15000 for an average home but there would be no more power bills or connection charges.



Deep cycle batteries should last more than ten years when properly maintained.

See [www.tweedcan.org.au/Gross Feed-In](http://www.tweedcan.org.au/Gross-Feed-In) for more detail on battery types and other options.

Sell it?

There may be alternatives to selling your solar power to “the Man” at rock bottom prices but it means getting organised.

ENOVA – A new, community owned, renewable energy retailer committed to giving the best feed-in tariff and to supporting solar providers like you. Margins are narrow and the tariff may not be much higher but more options may be provided for you to get the best return from your particular system.

<http://www.enovaenergy.com.au/>

Virtual Net Metering- If you are producing more solar than you can use or store it may be possible to transfer credits to your neighbours.

They will get a cheaper power bill and you will get a rebate better than the base solar feed in rate. Network obstacles may delay this option by several years.

Microgrid – It may be possible to sell excess solar power to neighbours via a network separate to the grid. While legal restrictions prevent direct AC supply between properties it may be possible to provide DC supply to battery systems. A microgrid of this type can use relatively low cost underground DC cable.

Some community microgrids use a grid connected DC downconverter to provide a trickle feed which dramatically reduces the total battery storage required.

Conclusion

Investigate the options early and work towards your chosen goal. Some battery providers may require a deposit several months in advance. Battery prices may come down but demand is likely to be high as thousands of others compete for equipment and technicians.

Visit [www.tweedcan.org.au/Gross Feed-In](http://www.tweedcan.org.au/Gross-Feed-In) for details of upcoming seminars on battery systems and other options. Help us advocate for you by using the links to push for the supply of sufficient net meters and by referring others to the site.

Note : TOU (time of use) billing- modern digital power meters also record whether power is used in peak or off-peak periods. A simple written request is all that is needed to switch to time of use billing.

Tariffs for off-peak power are approximately half the peak period tariff which is about 10% more than the usual untimed tariff. In NSW the off-peak period is 10pm to 7am each night and all weekend or 55% of the total time. There is also a “shoulder” period but the tariff is currently the same as the peak period.

The power used in these different periods is already recorded (but maybe unlabelled) on your bill and then lumped together to calculate your untimed tariff. If you use more than 20% of your power in off-peak time then you could save money by switching to time of use billing.